

August 26, 2006

Mr. Willard Cox  
Plant Manager  
Galax Energy Concepts, LLC  
1010 Glendale Road  
Galax, Virginia 24333

Location: Galax, VA  
Registration No: 11012  
AIRS No: 51-640-0059

Dear Mr. Cox:

Attached is a permit to operate your steam production facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This renewed permit is in effect from August 27, 2006 through August 26, 2011.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this permit, the Department deemed the application complete on April 26, 2006, and solicited written public comments by placing a newspaper advertisement in the *Galax Gazette* on August 4, 2006. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on September 4, 2006, with \_\_\_ comments having been received in this office.

This approval to operate does not relieve Galax Energy Concepts of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Mr. Willard Cox

August 26, 2006  
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Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, Virginia 23240-0009

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please call Robert Lowe at (276) 676-4863.

Sincerely,

Dallas R. Sizemore  
Deputy Regional Director

Attachment: Permit  
40 CFR 63, Subpart A, Subpart DDDDD; 40 CFR 64 ; 40 CFR 60, Subpart Dc  
Part II, Article 46, Rule 4-46 of the Virginia Administrative Code  
Source Testing Report Format

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Chief, Air Enforcement Branch (3AT13), U.S. EPA, Region III (Attention: Ms. Sharon McCauley, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103)  
Mr. Mark Huncik, Environmental Consultant, 1205 Coldstream Court, Raleigh, NC 27615

## Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, § 10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Galax Energy Concepts, LLC
Facility Name:	Galax Energy Concepts, LLC
Facility Location:	1010 Glendale Road Galax, Virginia 24333
Registration Number:	11012
Permit Number:	SWRO11012

Effective Date: August 27, 2006

Expiration Date: August 26, 2011

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Michael D. Overstreet  
Regional Director, Department of Environmental Quality

Signature Date: August 27, 2006

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## **I. Facility Information**

### **Permittee**

Galax Energy Concepts, LLC  
1010 Glendale Road  
Galax, Virginia 24333

### **Responsible Official**

Mr. Willard Cox  
Plant Manager

### **Facility**

Galax Energy Concepts, LLC  
1010 Glendale Road  
Galax, Virginia 24333

### **Contact Person**

Mr. Mark Huncik  
Environmental Consultant  
1205 Coldstream Court  
Raleigh, NC 27615

**NET Identification Number:** 51-640-0059

**Facility Description:** SIC Code 4961 – Galax Energy Concepts, LLC (GEC) operates three (3) wood-fired gasifier boilers and a municipal waste heat incinerator with heat recovery boiler in Galax, Virginia. A distillate oil-fired boiler is utilized as a backup. The facility produces steam for resale.

The facility is a Title V major source of carbon monoxide because the potential-to-emit is greater than 100 tons/year. This source is located in an attainment area for all pollutants.

The facility is currently permitted under a modified NSR permit amendment dated June 29, 2005. This is a Title V permit renewal and incorporates changes made since the May 31, 2002 NSR permit issuance.

## II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Fuel Burning Equipment</b>							
1	1	C&H Combustion Co. CH55-R Municipal Waste Incinerator with Waste Heat Recovery Boiler	4167 lbs/hr	Secondary combustion chamber w/fabric filter baghouse-Baumco 2115-612-P	1	PM, VOC, CO	Permit dated June 29, 2005
2	2	Converta Kiln wood-fired gasifier/boiler	29.5 MM Btu/hr	Barron Industries Multicyclones	2	PM	Permit dated June 29, 2005
3	3	Converta Kiln wood-fired gasifier/boiler	29.5 MM Btu/hr	Barron Industries Multicyclones	3	PM	Permit dated June 29, 2005
4	4	Converta Kiln wood-fired gasifier/boiler	29.5 MM Btu/hr	Barron Industries Multicyclones	4	PM	Permit dated June 29, 2005
5	5	Murray-Trane Distillate Oil-fired boiler	31.24 MM Btu/hr	--	--	--	Permit dated June 29, 2005

The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

### **III. Fuel Burning Equipment Requirements – Emission Unit No. 1**

#### **A. Limitations**

1. Particulate emissions from the C & H Combustion Company incinerator (I.D. No. 1) shall be controlled by the use of a secondary combustion chamber and a fabric filter baghouse. The fabric filter baghouse shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 7 of NSR Permit dated June 29, 2005)
2. Volatile Organic Compound and carbon monoxide emissions from the C & H Combustion Company incinerator (I.D. No. 1) shall be controlled by the use of a secondary combustion chamber. The secondary combustion chamber shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 8 of NSR Permit dated June 29, 2005)
3. The approved fuels for the C & H Combustion Company incinerator (I.D. No. 1) are distillate oil and municipal waste. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 “Standard Specification for Fuel Oils.” A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 12 of NSR Permit dated June 29, 2005)
4. The maximum sulfur content of the oil to be burned in the incinerator (I.D. No. 1) shall not exceed 0.5 percent by weight per shipment.  
( 9 VAC 5-80-110 and Condition 16 of NSR Permit dated June 29, 2005)
5. The C & H Combustion Company incinerator (I.D. No. 1) shall consume no more than 34 tons per day and 12,410 tons per year of municipal waste. Annual consumption shall be calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 15 of NSR Permit dated June 29, 2005)
6. The C & H Combustion Company incinerator (I.D. No. 1) exhaust stack shall be maintained at a height of 60 feet above ground level. The exhaust stack shall provide unobstructed vertical discharge.  
(9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 3 of NSR Permit June 29, 2005)



7. Emissions from the operation of the C & H Combustion Company incinerator (I.D. No. 1) shall not exceed the limits specified below:

Particulate Matter	0.08 gr/dscf @ 12% CO <sub>2</sub>	(9 VAC 5-50-260)
PM-10	0.08 gr/dscf @ 12% CO <sub>2</sub>	(9 VAC 5-50-260)
Sulfur Dioxide	2.9 lbs/hr	12.66 tons/yr* (9 VAC 5-50-260)
Nitrogen Oxides (as NO <sub>2</sub> )	3.56 lbs/hr	15.57 tons/yr* (9 VAC 5-50-260)
Carbon Monoxide	3.17 lbs/hr	13.84 tons/yr* (9 VAC 5-50-260)
Volatile Organic Compounds	0.37 lbs/hr	1.61 tons/yr* (9 VAC 5-50-260)

\*Based on an exhaust gas flow rate of 550,251 dscf/hr

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 5 and 9 of Section III of this permit.

(9 VAC 5-80-110 and Condition 18 of NSR Permit dated June 29, 2005)

8. Visible Emissions from the incinerator (I.D. No. 1) stack shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.  
(9 VAC 5-50-80 and 9 VAC 5-80-110)

9. The distillate oil and municipal waste fuels shall meet the specifications below:

DISTILLATE OIL, which meets ASTM D396-78 specifications for, numbers 1 or 2 fuel oil: Maximum sulfur content per shipment: 0.5%

MUNICIPAL WASTE consists of the following:

- Household Waste - material discarded by single and multiple residential dwellings, hotels, motels and other similar permanent or temporary housing establishments or facilities.
- Commercial/Retail Waste - includes material discarded by stores, offices, restaurants, warehouses, non-manufacturing activities at industrial facilities and other similar establishments or facilities.

- c. Institutional Waste - includes material discarded by schools, hospitals, non-manufacturing activities at prisons and government facilities and other similar establishments or facilities.

Municipal waste does not include sewage, industrial process or manufacturing wastes, infectious wastes, wastes contaminated with polychlorinated biphenyls (PCB's), or soils contaminated with petroleum products. A change in the fuels may require a permit to modify and operate.

(9 VAC 5-80-10, 9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 16 of NSR Permit dated June 29, 2005)

## **B. Monitoring**

1. The baghouse fabric filter shall be equipped with a device to continuously measure the pressure drop across the fabric filter. The permittee shall monitor daily the pressure drop across the baghouse filter during periods of normal operation to ensure proper operation and maintenance. If a change in pressure drop occurs (outside manufacturer's specification limits), the cause should be determined and corrective action taken to maintain proper operation. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.  
(9 VAC 5-80-110 and Conditions 7 and 8 of NSR Permit dated June 29, 2005)
2. The permittee shall perform a weekly visible emission observation on the baghouse exhaust, during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission) that appear to be greater than 10% opacity, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes. A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 20%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit. A Method 9 evaluation shall not be required if the visible emissions observed during the weekly visible emission observation are less than 10% opacity; or, the visible emissions condition is corrected in a timely manner such that no visible emissions are present, the emissions unit is operating at normal operating conditions, and, the cause and corrective measures taken are recorded. The permittee shall perform an annual visible emissions evaluation in accordance with 40 CFR 60, Appendix A, Method 9, in order to establish the baseline of expected visible emissions.  
(9 VAC 5-80-110 and Condition 7 of NSR Permit dated June 29, 2005)

### C. Compliance Assurance Monitoring (CAM) Requirements

1. The permittee shall monitor, operate, calibrate and maintain the baghouse (I.D. No. 1) controlling the C & H Combustion Company incinerator according to the following tables:

**Table 1. CAM Plan Summary – Incinerator**

<b>A. Indicator</b>	Pressure drop and opacity
Measurement approach	Pressure drop measurement connected to a data logger, and weekly visual observation per Title V permit.
<b>B. Indicator Range</b>	<p>An excursion is defined as a pressure drop value (based on a 3-hour block average) outside the range as determined through performance tests:</p> <ul style="list-style-type: none"> <li>- excluding periods of startup, off-line activities, maintenance (e.g., soot blowing), and load ramping. Excursions trigger an inspection of the control system and corrective action.</li> </ul> <p>If five (5) percent or greater of data (averaged over a 3-hour block period and excluding startup, shutdown, and malfunction periods) recorded in a calendar quarter show pressure drop values outside the appropriate range, a stack test shall be performed in the following calendar quarter to demonstrate compliance with the particulate standard.</p>
<b>C. Performance Criteria</b>	
1. Data Representativeness	Pressure drop sensors are currently installed on baghouse and provide representative data. Bagfilter sensor shall be installed as required by manufacturer.
2. Verification of Operational Status	Existing sensors, or comparable sensors, shall be used, and installation and operation shall be documented.
3. QA/QC Practices and Criteria	QA/QC, calibrations, and maintenance shall follow manufacturer recommendations. Documentation of performance evaluations, calibration checks, and maintenance logs are kept for a minimum of 5 years.
4. Monitoring Frequency	Continuous
5. Data Averaging Period	3-hour block averaging of 15-minute averages starting at midnight each day (total of eight 3-hour block periods)
6. Data Collection	Automated data acquisition system (DAHS)

**Table 1. (continued)**

7. Inspections	External and internal inspections are to be completed annually and when indicated by abnormal pressure drop; inspected by qualified personnel with at least one year of maintenance experience.
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**Table 2. PM CAM Plan Corrective Actions - Incinerator**

<b>A. Trigger for Corrective Action</b>	Corrective action shall be initiated upon exceeding respective opacity or pressure drop over 3-hour block period, excluding startup, shutdown, off-line activities, maintenance, and load ramping (see Table 1).
<b>B. Corrective Action</b>	<p>Control operator shall notify the shift supervisor or responsible official (plant manager or representative) in accordance with plant procedures.</p> <p>The following operating practices and procedures shall be initiated as necessary:</p> <ul style="list-style-type: none"><li>- Identify cause of excursion</li><li>- Reduce load, as necessary, to help minimize emissions</li><li>- Proceed to shutdown or confirm malfunction conditions exist if emissions cannot be controlled appropriately</li><li>- Initiate work order for bagfilter inspection and repair as needed.</li></ul> <p>Nature and cause of excursion shall be documented in operations log.</p> <p>Provide notification to VA-DEQ as necessary.</p>

(9 VAC 5-80-110 and 40 CFR 64)

2. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.6 (c))
3. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (b))

4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the C & H Combustion Company incinerator is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (c))
5. Upon detecting an excursion or exceedance, the permittee shall restore operation of the C & H Combustion Company incinerator (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (d)(1))
6. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7(d)(2))
7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director, Southwest Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of

additional parameters.

(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7(e))

8. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the C & H Combustion Company incinerator for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
    - a. Improved preventative maintenance practices;
    - b. Process operation changes;
    - c. Appropriate improvements to control methods;
    - d. Other steps appropriate to correct control performance; and
    - e. More frequent or improved monitoring.
- (9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.8(a) and (b))

Upon promulgation and applicability of 40 CFR 60, Subpart FFFF, to the affected source, the provisions of Section III.C. of this permit shall be inapplicable, and the provisions of 40 CFR 60, Subpart FFFF, shall apply.

#### **D. Recordkeeping**

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier,
  - b. The date on which the oil was received,
  - c. The volume of distillate oil delivered in the shipment,
  - d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
  - e. The sulfur content of the oil.

(9 VAC 5-80-110 and Condition 17 of NSR Permit dated June 29, 2005)
2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:

- a. The daily, monthly, and annual consumption of municipal waste. The annual consumption shall be calculated as the sum of each consecutive twelve (12) month period.
- b. All fuel supplier certifications.
- c. The type of municipal waste consumed.
- d. Visible emission checks and any corrective actions.
- e. Pressure drop across the baghouse filter.
- f. Maintenance records for the secondary combustion chamber.
- g. Calculations showing compliance with sulfur dioxide, carbon monoxide, volatile organic carbons and nitrogen oxide emission limits as stated in Section III.A.7. of this permit.
- h. Particulate matter emissions as a result of the performance testing.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-50-50 and 9 VAC 5-80-110)

3. The permittee shall maintain records of the required training including a statement of time, place and nature training provided. The permittee shall have available good written operating procedures and a maintenance schedule. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110 and Condition 30 of NSR Permit dated June 29, 2005)

#### **E. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 4 of NSR Permit dated June 29, 2005)
2. The permittee shall complete performance testing on the incinerator exhaust once every five years after permit issuance, if operating, to demonstrate compliance with particulate emission limits in Section III.A.7. of this permit. The initial test shall be performed within 60 days after achieving the maximum production rate or no later than 180 days after re-startup. The performance test shall be completed within five years after permit issuance, if the incinerator is operating, and every five years thereafter, prior to the permit renewal date. The Department and EPA have authority to require

testing not included in this permit if necessary to determine compliance with an emission limit or standard. Details shall be arranged with the Director, Southwest Regional Office. The permittee shall use the unit-specific emission factors developed during the most recent performance tests for purposes of calculating particulate emissions to demonstrate compliance with the emission limits in Section III.A.7. of this permit.

(9 VAC 5-80-110 and Condition 18 of NSR permit dated June 29, 2005)

#### **IV. Fuel Burning Equipment Requirements – Emission Unit Nos. 2, 3, 4**

##### **A. Limitations**

1. Particulate emissions from the wood-fired boilers (I.D. Nos. 2, 3, and 4) shall be controlled by the use of mechanical collectors (multicyclones), and an annual inspection shall be conducted to ensure mechanical integrity.  
(9 VAC 5-80-110 and Condition 5 of NSR Permit dated June 29, 2005)
2. The approved fuel for the Converta Kiln wood-fired boilers (I.D. Nos. 2, 3, and 4) is wood. A change in the fuel may require a permit to modify and operate. Wood excludes any wood which contains chemical treatments or has affixed thereto paint and/or finishing materials or paper or plastic laminates.  
(9 VAC 5-80-110 and Conditions 11 and 16 of NSR Permit dated June 29, 2005)
3. Particulate emissions from the unloading, storage, and handling of wood waste shall be controlled by the use of partial enclosures.  
(9 VAC 5-80-110 and Condition 6 of NSR Permit dated June 29, 2005)
4. The mechanical collectors (multicyclones) shall be equipped with a device to continuously measure the differential pressure drop across the multicyclones.  
(9 VAC 5-80-110 and Condition 9 of NSR Permit dated June 29, 2005)
5. The wood-fired boilers (I.D. Nos. 2, 3, and 4) shall consume no more than 3.34 tons/hour each and a combined total of no more than 67,000 tons per year of wood. Annual consumption shall be calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 14 of NSR Permit dated June 29, 2005)
6. Emissions from the operation of the three wood-fired boilers (I.D. Nos. 2, 3, and 4) shall not exceed the limits specified below:

		<u>lbs/hr/unit</u>	<u>tons/yr combined</u>
Particulate Matter	0.16 lbs/MMBtu	4.72	47.7
PM-10	0.16 lbs/MMBtu	4.72	47.7



Sulfur Dioxide	0.30	3.02
Nitrogen Oxides (as NO <sub>2</sub> )	1.54	15.41
Volatile Organic Compounds	0.73	7.37
Carbon Monoxide	16.52	166.96

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 20 of NSR Permit dated June 29, 2005)

7. Emissions from the unloading, storage, and handling of wood waste shall not exceed the limits specified below:

Particulate Matter	60 lbs/hr	10.05 tons/yr
PM-10	21.6 lbs/hr	3.62 tons/yr

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 21 of NSR Permit dated June 29, 2005)

8. Visible emissions from fugitive emission sources shall not exceed 20 percent opacity based on EPA Method 9 (reference 40 CFR 60, Appendix A).  
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 22 of NSR Permit dated June 29, 2005)
9. Boiler (I.D. Nos. 2, 3, and 4) emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.  
(9 VAC 5-80-110 and Condition 30 of NSR Permit dated June 29, 2005)
10. Visible emissions from the Converta Kiln wood-fired gasifier/boiler (I.D. Nos. 2, 3, and 4) exhausts shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 24 of NSR Permit dated June 29, 2005)
11. Except where this permit is more restrictive than the applicable requirement, the NSPS equipment as described in Section II of this permit, Emission Unit I.D. Nos. 2,

3, and 4, shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.

(9 VAC 5-50-400, 9 VAC 5-50-410, 9 VAC 5-80-110, 40 CFR 60.40c, 60.41c, 60.48c(g) and Condition 25 of NSR Permit dated June 29, 2005)

12. The wood boiler stack (I.D. Nos. 2, 3, and 4) exhausts shall be maintained at a height of 60 feet above ground level.

(9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 3 of NSR Permit dated June 29, 2005)

13. Test ports shall be provided in the wood-fired boiler (I.D. Nos. 2, 3, and 4) exhausts.
- (9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 4 of NSR Permit dated June 29, 2005)

## **B. Monitoring**

1. The permittee shall monitor continuously the pressure drop across the multicyclones. If a change in pressure drop occurs (outside manufacturer's specification limits), the cause shall be determined and corrective action taken to maintain proper operation. The multicyclones shall be equipped with a device for monitoring pressure drop. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.

(9 VAC 5-80-110 and Condition 9 of NSR Permit dated June 29, 2005)

2. The permittee shall conduct an annual internal inspection on the multicyclones to insure structural integrity.

(9 VAC 5-80-110 and Condition 5 of NSR Permit dated June 29, 2005)

3. The permittee shall perform a weekly visible emission observation on each wood boiler stack, during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission) that appear to be greater than 10% opacity, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes. A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 20%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit. A Method 9 evaluation shall not be required if the visible emissions observed during the weekly visible emissions observation are less than 10% opacity; or, the visible emissions condition is corrected in a timely manner such that no visible emissions are present, the emissions unit is operating at normal operating conditions, and, the cause and corrective measures taken are recorded. The permittee shall perform an annual

visible emissions evaluation in accordance with 40 CFR 60, Appendix A, Method 9, in order to establish the baseline of expected visible emissions.  
(9 VAC 5-80-110 K and Condition 24 of NSR Permit dated June 29, 2005)

4. The permittee shall perform a weekly visible emission observation on the unloading, storage, and handling of wood waste, during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission) that appear to be greater than 10% opacity, a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes. A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 20%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit. A Method 9 evaluation shall not be required if the visible emissions observed during the weekly visible emissions observation are less than 10% opacity; or, the visible emissions condition is corrected in a timely manner such that no visible emissions are present, the emissions unit is operating at normal operating conditions, and, the cause and corrective measures taken are recorded.  
(9 VAC 5-80-110 and Condition 22 of NSR permit issued June 29, 2005)

### C. Compliance Assurance Monitoring (CAM) Requirements

1. The permittee shall monitor, operate, calibrate and maintain the multicyclones (I.D. Nos. 2, 3, and 4) controlling the Converta Kiln boilers 2, 3, and 4 according to the following tables:

**Table 1. CAM Plan Summary – Wood-fired Boilers**

<b>A. Indicator</b>	Pressure drop and opacity
Measurement approach	Pressure drop measurement connected to a data logger, and weekly visual observation per Title V permit.
<b>B. Indicator Range</b>	<p>An excursion is defined as a pressure drop value (based on a 3-hour block average) outside the range as determined through performance tests:</p> <ul style="list-style-type: none"> <li>- Excluding periods of startup, off-line activities, maintenance (e.g., soot blowing), and load ramping. Excursions shall require an inspection of the control system and corrective action.</li> </ul> <p>If five (5) percent or greater of data (averaged over a 3-hour block period and excluding startup, shutdown, and malfunction periods) recorded in a calendar quarter show pressure drop values outside the appropriate range, a stack test shall be</p>

	performed in the following calendar quarter to demonstrate compliance with the particulate standard.
<b>C. Performance Criteria</b>	
1. Data Representativeness	Pressure drop sensors are currently installed on multiclones and provide representative data.
2. Verification of Operational Status	Existing sensors, or comparable sensors, shall be used, and installation and operation shall be documented.
3. QA/QC Practices and Criteria	QA/QC, calibrations, and maintenance shall follow manufacturer recommendations. Documentation of performance evaluations, calibration checks, and maintenance logs are kept for a minimum of 5 years.
4. Monitoring Frequency	Continuous
5. Data Averaging Period	3-hour block averaging of 15-minute averages starting at midnight each day (total of eight 3-hour block periods)
6. Data Collection	Automated data acquisition system (DAS)
7. Inspections	External once annually and when pressure drop is outside the indicator range. Internal inspections as required to alleviate any flow problems. Inspections shall be performed by a qualified individual with at least one year of experience in maintenance.

**Table 2. PM CAM Plan Corrective Actions – Wood-fired Boilers**

<b>A. Cause for Corrective Action</b>	Corrective action shall be initiated upon exceeding respective opacity or pressure drop over 3-hour block period, excluding startup, shutdown, off-line activities, maintenance, and load ramping (see Table 1).
<b>B. Corrective Action</b>	<p>Control operator shall notify the shift supervisor or responsible official (plant manager or representative) in accordance with plant procedures.</p> <p>The following operating practices and procedures shall be initiated as necessary:</p> <ul style="list-style-type: none"> <li>- Identify cause of excursion</li> <li>- Reduce load, as necessary, to help minimize emissions</li> <li>- Proceed to shutdown or confirm malfunction conditions exist if emissions cannot be controlled appropriately</li> <li>- Initiate work order for multiclone inspection and repair as needed.</li> </ul> <p>Nature and cause of excursion shall be documented in operations log.</p> <p>Provide notification to VA-DEQ as necessary.</p>

(9 VAC 5-80-110 and 40 CFR 64)

2. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.6 (c))
3. At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.  
(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (b))
4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the Converta Kiln boilers 2, 3, and 4 are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure

of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.

(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (c))

5. Upon detecting an excursion or exceedance, the permittee shall restore operation of each Converta Kiln boiler (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.

(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7 (d)(1))

6. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7(d)(2))

7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director, Southwest Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.7(e))

8. If the number of exceedances or excursions exceeds 5 percent duration of the operating time for each Converta Kiln boiler for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:

- a. Improved preventative maintenance practices;
  - b. Process operation changes;
  - c. Appropriate improvements to control methods;
  - d. Other steps appropriate to correct control performance; and
  - e. More frequent or improved monitoring.
- (9 VAC 5-80-110, 9 VAC 5-80-490 E and 40 CFR 64.8(a) and (b))

Upon promulgation and applicability of 40 CFR 63, Subpart DDDDD, to the affected source, the provisions of Section IV.C. of this permit shall be inapplicable, and the provisions of 40 CFR, Subpart DDDDD, shall apply.

#### **D. Recordkeeping**

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
  - a. The daily, monthly, and annual throughput of wood, in tons, for the wood-fired boilers. The annual throughput shall be calculated as the sum of each consecutive twelve (12) month period.
  - b. Specifications of the fuel consumed.
  - c. Calculations showing compliance with particulate emission limits in Section IV.A.7. of this permit, for the unloading, storage and handling of wood waste.
  - d. Calculations showing compliance with boiler emission limits in Section IV.A.6. of this permit.
  - e. Performance test results.
  - f. Records of all visible emission checks and any corrections.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 40 CFR 60.48c(g) and Condition 26 of NSR Permit dated June 29, 2005)

2. The permittee shall maintain records of the required training including a statement of time, place and nature training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110 and Condition 30 of NSR Permit dated June 29, 2005)

#### **E. Compliance Plan for Particulate Matter Emissions**

1. The permittee shall conduct stack testing to determine compliance with particulate matter emissions within sixty (60) days of startup of each wood-fired boiler (Emission Unit Nos. 2, 3, and 4). The testing shall be completed as follows:
  - a. Three test runs for each boiler operating at minimum steam production;
  - b. Three test runs for each boiler operating at maximum steam production;
  - c. Fuels burned during the testing shall be representative of the normal operating mode.
2. EPA Reference Test Method 5 shall be used to determine compliance with the applicable particulate emission limit.
3. Should any stack test results show non-compliance with the particulate emission limits in the permittee's air permit, the permittee shall extend the stack testing for those boilers every six (6) months until compliance is demonstrated. Once compliance is demonstrated, the stack testing shall be required every year for two (2) years. If compliance is demonstrated in the two successive years, then stack testing shall be required every two (2) years thereafter.
4. Should any stack test show compliance with the particulate emission limits, the stack testing for those boilers shall be required every year for two (2) years. If compliance is demonstrated in the two successive years, then stack testing shall be required every two (2) years thereafter.

The permittee shall notify the Director, Southwest Regional Office, seven (7) days prior to startup of each boiler and 15 days prior to the scheduled stack testing of each boiler. The test protocol for each boiler shall be submitted 30 days prior to the stack test. Test reports shall be submitted within 30 days of completion of the stack testing. Additional details shall be arranged with the Director, Southwest Regional Office. Records of the testing shall be maintained for at least five (5) years.  
(9 VAC 5-80-110 and

#### **F. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)



## V. Fuel Burning Equipment Requirements – Emission Unit No. 5

### A. Limitations

1. The approved fuel for the Murray-Trane boiler (I.D. No. 5) is distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 “Standard Specification for Fuel Oils.” A change in the fuels may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 10 of NSR Permit dated June 29, 2005)
2. The maximum sulfur content of the oil to be burned in the Murray-Trane boiler (I.D. No. 5) shall not exceed 0.5 percent by weight per shipment.  
( 9 VAC 5-80-110, 40 CFR 60.42c(h)(1) and Condition 16 of NSR Permit dated June 29, 2005)
3. The Murray-Trane boiler (I.D. No. 5) shall consume no more than 220 gallons of distillate oil per hour and 300,000 gallons of distillate oil per year; the annual amount to be calculated as the sum of each consecutive twelve (12) month period.  
(9 VAC 5-80-110 and Condition 13 of NSR Permit dated June 29, 2005)
4. Emissions from the operation of the Murray-Trane boiler (I.D. No. 5) shall not exceed the limits specified below:

Sulfur Dioxide	15.8 lbs/hr	10.65 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	4.4 lbs/hr	3.0 tons/yr
Carbon Monoxide	1.1 lbs/hr	0.75 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 2 and 3 of Section V.A. of this permit.

Annual emissions shall be calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 19 of NSR Permit dated June 29, 2005)

5. Visible emissions from the Murray-Trane boiler stack (I.D. No. 5) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

- (9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 23 of NSR Permit dated June 29, 2005)
6. The Murray Trane distillate oil-fired boiler (I.D. No. 5) exhaust stack shall be maintained at a height of 40 feet above ground level.  
(9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 3 of NSR Permit dated June 29, 2005)
  7. Test ports shall be provided in the Murray Trane Distillate oil-fired boiler (I.D. No. 5) exhaust.  
(9 VAC 5-50-30 F, 9 VAC 5-80-110 and Condition 4 of NSR Permit dated June 29, 2005)
  8. Except where this permit is more restrictive than the applicable requirement, the Murray Trane Distillate oil-fired boiler (I.D. No. 5) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.  
(9 VAC 5-50-400, 9 VAC 5-50-410, 9 VAC 5-80-110, 40 CFR 60.40c, 60.41c, 60.42c(h)(1), 60.48c(d), 60.48c(e)(11), 60.48c(f)(1), 60.48c(g), and Condition 25 of NSR Permit dated June 29, 2005)
  9. Emissions from the Murray Trane Distillate oil-fired boiler (I.D. No. 5) shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.  
(9 VAC 5-80-110 and Condition 30 of NSR Permit dated June 29, 2005)

## **B. Monitoring**

1. The permittee shall perform a weekly visible emission observation on the Murray Trane distillate oil-fired boiler stack, during normal operation, for a brief period of time to identify the presence of visible emissions. If, during any visible emission observation, visible emissions are observed (condensed water vapor/steam is not a visible emission), a visible emission evaluation (VEE) shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9, for a minimum of six minutes. A record of each visible emissions observation shall be maintained. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. If the average opacity is greater than 10%, changes and/or repairs shall be performed to correct the problem. If such corrective action fails to correct the problem, a VEE in accordance with 40 CFR Part 60, Appendix A, Method 9, shall be conducted for 18 minutes to determine compliance with the opacity limit. A Method 9 evaluation shall not be required if the visible emissions observed during the weekly visible emissions observation are less than 10% opacity; or, the visible emissions

condition is corrected in a timely manner such that no visible emissions are present, the emissions unit is operating at normal operating conditions, and, the cause and corrective measures taken are recorded. The permittee shall perform an annual visible emissions evaluation in accordance with 40 CFR 60, Appendix A, Method 9, in order to establish the baseline of expected visible emissions.

(9 VAC 5-80-110 K and Condition 23 of NSR Permit dated June 29, 2005)

### **C. Recordkeeping**

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier,
  - b. The date on which the oil was received,
  - c. The volume of distillate oil delivered in the shipment,
  - d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
  - e. The sulfur content of the oil.

(9 VAC 5-50-410, 9 VAC 5-80-110, 40 CFR 60.48c(d), 40 CFR 60.48c(e)(11), and Conditions 16 and 17 of NSR Permit dated June 29, 2005)
2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Southwest Regional Office. These records shall include, but are not limited to:
  - a. The daily, monthly, and annual throughput of distillate oil (in 1000 gallons) for the Murray-Trane boiler. The annual throughput shall be calculated as the sum of each consecutive twelve (12) month period.
  - b. All fuel supplier certifications.
  - c. Records of all visible emission checks and any corrections.
  - d. Calculations to show compliance with emission limits as stated in Section V.A.4. of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 40 CFR 60.48c(g), and Conditions 19 and 26 of NSR Permit dated June 29, 2005)

3. The permittee shall maintain records of the required training including a statement of time, place and nature training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.  
(9 VAC 5-80-110 and Condition 30 of NSR Permit dated June 29, 2005)

#### **D. Testing**

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.  
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
NO <sub>x</sub>	EPA Method 7
SO <sub>2</sub>	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

## **VI. Facility Requirements – MACT Standards**

The Maximum Achievable Control Technology (MACT) Standard for industrial boilers, under 40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters), and 9 VAC 5 Chapter 60, was proposed on January 13, 2003, and promulgated on September 13, 2004. The MACT standard is applicable to this facility for the existing Converta-Kiln wood-fired boilers per 40 CFR 63.7475, 40 CFR 63.7485, and 40 CFR 63.7490 (d).

#### **A. Compliance Timeline and Limited Requirements**

1. For existing large boilers and process heaters, the permittee shall comply with 40 CFR 63, Subpart DDDDD by September 13, 2007.  
(9 VAC 5-80-110 and 40 CFR 63.7495)
2. The Murray-Trane distillate oil-fired boiler is subject only to the initial notification requirements in 40 CFR 63.9 (b).

(9 VAC 5-80-110 and 40 CFR 63.7506 (b))

**B. Emission Limits, Work Practice Standards, and Operating Limits**

1. For existing large boilers and process heaters, the permittee shall meet each emission limit and work practice standard in Table 1 to Subpart DDDDD that applies to the wood-fired boilers, except as provided under 40 CFR 63.7507.  
(9 VAC 5-80-110 and 40 CFR 63.7500 (a) (1))
2. For existing large boilers and process heaters, the permittee shall meet each operating limit in Tables 2 through 4 to Subpart DDDDD that applies to the wood-fired boilers. If the permittee uses a control device or combination of control devices not covered in Tables 2 through 4 of Subpart DDDDD, or if it is desired to establish and monitor an alternative operating limit and alternative monitoring parameters, the permittee must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under 40 CFR 63.8(f).  
(9 VAC 5-80-110 and 40 CFR 63.7500 (a) (2))
3. For existing large boilers and process heaters, as specified in 40 CFR 63.6 (g), the EPA may approve use of an alternative to the work practice standards in Table 1 of Subpart DDDD.  
(9 VAC 5-80-110 and 40 CFR 63.7500 (b))

**C. General Compliance Requirements**

1. The permittee shall be in compliance with the emission limits (including operating limits) and the work practice standards in 40 CFR 63, Subpart DDDDD, at all times, except during periods of startup, shutdown, and malfunction.  
(9 VAC 5-80-110 and 40 CFR 63.7505 (a))
2. The permittee shall always operate and maintain the affected facility, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).  
(9 VAC 5-80-110 and 40 CFR 63.7505 (b))
3. The permittee shall demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to 40 CFR 63.7530(d) is less than the applicable emission limit. Otherwise, compliance must be demonstrated using performance testing.  
(9 VAC 5-80-110 and 40 CFR 63.7505 (c))
4. The permittee shall demonstrate compliance with any applicable emission limit through performance testing, by developing a site-specific monitoring plan according to the requirements in 40 CFR 63.7505 (d)(1) through (d) (4). This requirement shall also apply if the permittee petitions the EPA Administrator for alternative monitoring parameters under 40 CFR 63.8(f).

(9 VAC 5-80-110 and 40 CFR 63.7505 (d))

5. For an applicable emission limit or work practice standard, the permittee shall develop and implement a written startup, shutdown, and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3).  
(9 VAC 5-80-110 and 40 CFR 63.7505 (e))

#### **D. Compliance Alternatives**

1. If applicable, the permittee shall demonstrate eligibility for the health-based compliance alternative for HCl emissions in accordance with procedures in Appendix A, 40 CFR 63, Subpart DDDDD.  
(9 VAC 5-80-110 and 40 CFR 63.7507 (a))

#### **E. Testing, Fuel Analyses, and Initial Compliance Requirements**

1. The permittee shall conduct testing, fuel analyses, and meet initial compliance requirements for the wood-fired boilers in accordance with 40 CFR 63.7510 (a), (b), (c), and (d).  
(9 VAC 5-80-110 and 40 CFR 63.7510)
2. The permittee shall conduct subsequent performance tests or fuel analyses for the wood-fired boilers in accordance with 40 CFR 63.7515.  
(9 VAC 5-80-110 and 40 CFR 63.7515)
3. The permittee shall follow procedures in 40 CFR 63.7520 (a), (b), (d), (e), (f) and (g) for completion of performance tests.  
(9 VAC 5-80-110 and 40 CFR 63.7520)
4. The permittee shall follow procedures in 40 CFR 63.7521 for completion of fuel analysis tests.  
(9 VAC 5-80-110 and 40 CFR 63.7521)
5. If applicable, as an alternative to meeting requirements in 40 CFR 63.7500, the permittee shall demonstrate compliance by emission averaging in accordance with procedures in 40 CFR 63.7522.  
(9 VAC 5-80-110 and 40 CFR 63.7522)
6. The permittee shall demonstrate initial compliance with emission limits and work practice standards as applicable in accordance with 40 CFR 63.7530.  
(9 VAC 5-80-110 and 40 CFR 63.7530)

#### **F. Continuous Compliance Requirements**

1. The permittee shall monitor and collect data to demonstrate continuous compliance in accordance with 40 CFR 63.7535.  
(9 VAC 5-80-110 and 40 CFR 63.7535)

2. The permittee shall demonstrate continuous compliance with the emission limits and work practice standards in accordance with procedures in 40 CFR 63.7540.  
(9 VAC 5-80-110 and 40 CFR 63.7540)
3. If applicable, the permittee shall demonstrate continuous compliance with the emission provision in accordance with procedures in 40 CFR 63.7541.  
(9 VAC 5-80-110 and 40 CFR 63.7541)

#### **G. Notification, Reports, and Records**

1. The permittee shall submit notifications in accordance with 40 CFR 63.7545 (a), (b) (1), (d), (e)(1) – (7) and (9).  
(9 VAC 5-80-110 and 40 CFR 63.7545)
2. The permittee shall submit the applicable required reports by the applicable due dates in accordance with 40 CFR 63.7550.  
(9 VAC 5-80-110 and 40 CFR 63.7550)
3. The permittee shall keep and maintain records in accordance with applicable requirements in 40 CFR 63.7555 and 40 CFR 63.7560.  
(9 VAC 5-80-110, 40 CFR 63.7555, and 40 CFR 63.7560)
4. The permittee shall apply General Provisions of this chapter in accordance with Table 10 of 40 CFR 63, Subpart DDDDD.  
(9 VAC 5-80-110 and 40 CFR 63.7565)

### **VII. Emission Standards for Small Municipal Waste Combustors, Emission Unit I.D. No. 1 (Part II, Article 46, Rule 4-46 of the Virginia Administrative Code)**

#### **A. Applicability and Designation**

1. The C & H Combustion Company incinerator shall combust at least 35 tons/day of municipal solid waste (MSW) but no more than 250 tons/day, with construction having commenced prior to August 30, 1999.  
(9 VAC 5-40-6550 A)
2. The provisions of 40 CFR Part 60 cited in this article are applicable only to the extent that they are incorporated by reference in Article 5 (9 VAC 5-50-400 et seq.) of Part II of 9 VAC 5 Chapter 50.  
(9 VAC 5-40-6550 F)
3. The requirement of 9 VAC 5-40-6550 D. 5. of this section with regard to obtaining a permit under Section 3005 of the Solid Waste Disposal Act (42 USC Section 6901 et

seq.) may be met by obtaining a permit from the department as required by 9 VAC 20 Chapter 60.

(9 VAC 5-40-6550 G)

## **B. Emission Standards**

1. The C & H Combustion Company incinerator shall not discharge into the atmosphere any particulate emissions in excess of 70 milligrams per dry standard cubic meter, measured at 7 percent oxygen, 3-run average.

(9 VAC 5-40-6570 B)

2. The C & H Combustion Company incinerator shall not discharge into the atmosphere any carbon monoxide emissions in excess of the following:

For mass burn rotary refractory units: 100 parts per million by dry volume measured at 7 percent oxygen, 4-hour block average, arithmetic mean.

(9 VAC 5-40-6580 3.)

3. The C & H Combustion Company incinerator shall not discharge into the atmosphere any dioxin/furan emissions (total mass basis) in excess of 125 nanograms per dry standard cubic meter, measured at 7 percent oxygen, 3-run average (minimum run duration of 4 hours).

(9 VAC 5-40-6590 B)

4. The C & H Combustion Company incinerator shall not discharge into the atmosphere any hydrogen chloride emissions in excess of 250 parts per million by dry volume or 50 percent reduction of potential emissions, measured at 7 percent oxygen, 3-run average (minimum run duration of 1 hour).

(9 VAC 5-40-6600 B)

5. The C & H Combustion Company incinerator shall not discharge into the atmosphere any sulfur dioxide emissions in excess of 77 parts per million by dry volume or 50 percent reduction of potential emissions, measured at 7 percent oxygen, 24-hour daily block geometric average concentration or percent reduction.

(9 VAC 5-40-6610 B)

6. The C & H Combustion Company incinerator shall not discharge into the atmosphere any lead emissions in excess of 1.6 milligrams per dry standard cubic meter, measured at 7 percent oxygen, 3-run average.

(9 VAC 5-40-6630 B)

7. The C & H Combustion Company incinerator shall not discharge into the atmosphere any cadmium emissions in excess of 0.10 milligrams per dry standard cubic meter, measured at 7 percent oxygen, 3-run average.

(9 VAC 5-40-6640 B)



8. The C & H Combustion Company incinerator shall not discharge into the atmosphere any mercury emissions in excess of 0.080 milligrams per dry standard cubic meter, measured at 7 percent oxygen, 3-run average.  
(9 VAC 5-40-6650 B)
9. The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Visible Emissions) apply except that the provisions in subsection B of this section apply instead 9 VAC 5-40-80.  
(9 VAC 5-40-6660 A)
10. The C & H Combustion Company incinerator shall not discharge into the atmosphere any visible emissions which exhibit greater than 10 percent opacity, measured at thirty, 6-minute averages.  
(9 VAC 5-40-6660 B)
11. The provisions of Article 1 (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Fugitive Dust/Emissions, Rule 4-1) apply.  
(9 VAC 5-40-6670 A)
12. The C & H Combustion Company incinerator shall not discharge into the atmosphere any fugitive ash visible emissions for more than 5 percent of the hourly observation period, measured at three, 1-hour observation periods.  
(9 VAC 5-40-6670 B)
13. The provisions of Article 2 (9 VAC 5-40-130 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Odor, Rule 4-2) apply.  
(9 VAC 5-40-6680)
14. The provisions of Article 4 (9 VAC 5-60-200 et seq.) of 9 VAC 5 Chapter 60 (Emission Standards for Toxic Pollutants, Rule 6-4) apply.  
(9 VAC 5-40-6690)

### **C. Operator Training and Certification**

1. Each chief facility operator, shift supervisor, and control room operator shall complete a training course as follows:
  - a. The operating training course shall be completed by the later of (i) January 31, 2004, (ii) six months after the C & H Combustion Company incinerator starts up, or (iii) the date before an employee assumes responsibilities that affect operation of the incinerator.
  - b. The requirement in 9 VAC 5-40-6700 A. 1. of this section does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before January 31, 2003.

- c. The owner may request that the board waive the requirement in subdivision A 1 of this section for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before January 31, 2003.  
(9 VAC 5-40-6700 A)
2. The permittee shall establish a plant-specific training course and operating manual as follows:
  - a. All employees with responsibilities that affect how a municipal waste combustion unit operates, including but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane or load handlers, shall complete the plant-specific training course.
  - b. A plant-specific operating manual shall be developed by the later of (i) six months after the municipal waste combustor unit starts up, or (ii) January 31, 2004.
  - c. A program to review the plant-specific operating manual with employees whose responsibilities affect the operation of the municipal waste combustion unit shall be established. Initial review of the program shall be completed by the later of (i) January 31, 2004, (ii) six months after the municipal waste combustor unit starts up, or (iii) the date before an employee assumes responsibilities that affect operation of the municipal waste combustion unit.
  - d. The manual shall be updated and reviewed with staff annually.
  - e. The following information shall be included in the plant-specific operating manual:
    - (1) A summary of all applicable requirements in Article 46.
    - (2) A description of the basic combustion principles that apply to municipal waste combustion units.
    - (3) Procedures for receiving, handling, and feeding municipal solid waste.
    - (4) Procedures to be followed during periods of startup, shutdown, and malfunction of the municipal waste combustion unit.
    - (5) Procedures for maintaining a proper level of combustion air supply.
    - (6) Procedures for operating the municipal waste combustion unit in compliance with the requirements contained in this article.
    - (7) Procedures for responding to periodic upset or off-specification conditions.
    - (8) Procedures for minimizing carryover of particulate matter.
    - (9) Procedures for handling ash.
    - (10) Procedures for monitoring emissions from the municipal waste combustion unit.
    - (11) Procedures for recordkeeping and reporting.
  - f. The operating manual shall be maintained in an easily accessible location at the plant. It shall be available for review or inspection by all employees who are required to review it and by the board.  
(9 VAC 5-40-6700 B)

3. Each chief facility operator and shift supervisor shall obtain operator certification as follows:
  - a. Each chief facility operator and shift supervisor shall obtain and maintain one of the following:
    - (1) A current provisional operator certification from the American Society of Mechanical Engineers (QRO-1-1994); or
    - (2) A current provisional operator certification approved by the Board.
  - b. The certification and licensing required in subdivisions C 1 a and C 1 b of 9 VAC 5-40-6700 shall be obtained by the later of the following:
    - (1) July 31, 2004.
    - (2) Six months after the municipal waste combustion unit starts up.
    - (3) Six months after being transferred to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.
  - c. Each chief facility operator and shift supervisor shall take one of the following actions:
    - (1) Obtain a full certification from the American Society of Mechanical Engineers or a certification approved by the board.
    - (2) Schedule a full certification exam with the American Society of Mechanical Engineers (QRO-1-1994).
    - (3) Schedule a full certifications exam to obtain a certification approved by the board.
4. The chief facility operator and shift supervisor shall obtain the full certification or be schedule to take the certification exam as required in subdivision C 3 of this section by the later of the following dates:
  - a. July 31, 2004.
  - b. Six months after the municipal waste combustion unit starts up.
  - c. Six months after the transfer to the municipal waste combustion unit or 6 months after they are hired to work at the municipal waste combustion unit.(9 VAC 5-40-6700 C)
5. After the required date for full or provisional certification, no municipal waste combustion unit shall be operated unless one of the following employees is on duty:
  - a. A full certified chief facility operator.
  - b. A provisionally certified chief facility operator who is scheduled to take the full certification exam.
  - c. A full certified shift supervisor.
  - d. A provisionally certified shift supervisor who is scheduled to take the full certification exam.(9 VAC 5-40-6700 D)
6. No owner of an affected facility shall allow the facility to be operated at any time unless a person is on duty who is responsible for the proper operation of the facility

and has a license from the Board of Waste Management Facility Operators in the correct classification. No provision of this article shall relieve any owner from the responsibility to comply in all respects with the requirements of Chapter 22.1 (section 54.1-2209 et seq.) of Title 54.1 of the Code of Virginia, and with 18 VAC 155 Chapter 20.

(9 VAC 5-40-6700 E)

7. If the certified chief facility operator and certified shift supervisor both are unavailable, a provisionally certified control room operator at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, the owner shall meet one of the following:
  - a. When the certified chief facility operator and certified shift supervisor are both offsite for 12 hours or less and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the board.
  - b. When the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the board. The periods when the certified chief facility operator and certified shift supervisor are offsite shall be recorded and included in the annual report as specified under 9 VAC 5-40-6770 B 2 I.
  - c. When the certified chief facility operator and certified shift supervisor are offsite for more than 2 weeks, and no other certified operator is onsite, the provisionally certified control room operator may perform those duties without notice to, or approval by, the board, and the owner shall:
    - (1) Notify the board in writing what caused the absence and what is being done to ensure that a certified chief facility officer or certified shift supervisor is onsite; and
    - (2) Submit a status report and corrective action summary to the board every 4 weeks following the initial notification. If the board notifies the owner that the status report or corrective action summary is disapproved, the municipal waste combustion unit shall cease operation after 90 days. If corrective actions are taken in the 90-day period such that the board withdraws the disapproval, municipal waste combustion unit operation may continue.

(9 VAC 5-40-6700 F)

8. The requirements of this section with regard to scheduling and obtaining certification through a program approved by the board may be met by obtaining a license from the Board of Waste Management Facility Operators. All training and licensing shall be conducted in accordance with Chapter 22.1 (Section 54.1-2209 et seq.) of Title 54.1 of the Code of Virginia and with 18 VAC 155 Chapter 20.

(9 VAC 5-40-6700 G)

#### **D. Operating Requirements**

1. No owner shall operate any municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour block average).  
(9 VAC 5-40-6720 A)
2. The municipal waste combustion unit shall be operated such that the temperature at the inlet of the particulate matter control device does not exceed 17 degrees Centigrade above the maximum demonstrated temperature of the particulate matter control device (4-hour block average).  
(9 VAC 5-40-6720 B)
3. If the municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, an 8-hour block average carbon feed rate at or above the highest average level established during the most recent dioxins/furans or mercury test shall be maintained.  
(9 VAC 5-40-6720 C)
4. If the municipal waste combustion unit uses activated carbon to control dioxins/furans or mercury emissions, the total carbon usage for each calendar quarter shall be evaluated. The total amount of carbon purchased and delivered to the municipal waste combustion plant shall be at or above the required quarterly usage of carbon. The quarterly usage of carbon shall be calculated as required in 9 VAC 5-40-6760 F 1 e (1) and (2).  
(9 VAC 5-40-6720 D)
5. A municipal waste combustion unit is exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of the following:
  - a. Annual test for dioxins/furans.
  - b. Annual mercury tests (for carbon feed rate requirements only).
  - c. The 2 weeks preceding annual tests for dioxins/furans.
  - d. The 2 weeks preceding annual mercury tests (for carbon feed rate requirements only).
  - e. Whenever the board allows any of the following:
    - (1) Evaluation of system performance.
    - (2) Testing of new technology or control technologies.
    - (3) Performance of diagnostic testing.
    - (4) Performance of other activities to improve unit performance.
    - (5) Performance of other activities to advance the state of the art for emission controls for the municipal waste combustion unit.  
(9 VAC 5-40-6720 E)

## **E. Compliance**

1. The provisions governing compliance shall be as follows:
  - a. With regard to the emissions standards in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690, the provisions of 9 VAC 5-40-20 (Compliance) apply.
  - b. With regard to the emission limits in 9 VAC 5-40-6570 through 9 VAC 5-40-6660, and 9 VAC 5-40-6670 B, the following provisions apply:
    - (1) 9 VAC 5-40-20 B, C, D and E;
    - (2) 40 CFR 60.11; and
    - (3) Subsections B through F of this section.(9 VAC 5-40-6730 A)
2. After the date of the initial emission test and continuous monitoring system evaluation are required or completed, whichever is earlier, the permittee shall meet the applicable emission limits specified in 9 VAC 5-40-6570 through 9 VAC 5-40-6660.  
(9 VAC 5-40-6730 B)
3. Initial and annual emission tests shall be conducted to measure the emission levels of dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash. The results of the emission tests for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash shall be used to demonstrate compliance with the applicable emission limits. Compliance for carbon monoxide, nitrogen oxides, and sulfur dioxide shall be demonstrated as provided in 9 VAC 5-40-6730 E.  
(9 VAC 5-40-6730 C)
4. The permittee shall (i) install continuous emission monitoring systems for certain gaseous pollutants, (ii) operate continuous emission monitoring systems correctly, (iii) obtain the minimum amount of monitoring data, and (iv) install a continuous opacity monitoring system.  
(9 VAC 5-40-6730 D)
5. The permittee shall use data from the continuous emission monitoring systems for sulfur dioxide, nitrogen oxides, and carbon monoxide in order to demonstrate continuous compliance with the applicable emission limits specified in 9 VAC 5-40-6610, 9 VAC 5-40-6620, and 9 VAC 5-40-6580.  
(9 VAC 5-40-6730 E)
6. Municipal waste combustion unit capacity shall be determined as follows.
  - a. For a municipal waste combustion unit than can operate continuously for 24-hour periods, the municipal waste combustion unit capacity shall be calculated based on 24 hours of operation at the maximum charge rate. The maximum charge rate shall be determined by one of the following methods.

- (1) For municipal waste combustion units with a design based on heat input capacity, the maximum charging rate shall be calculated based on the maximum heat input capacity and one of the following heating values:
    - (a) If the municipal waste combustion unit combusts refuse-derived fuel, a heating value of 12,800 kilojoules per kilogram (5500 British thermal units per pound) shall be used; or
    - (b) If the municipal waste combustion unit combusts municipal solid waste, a heating value of 10,500 kilojoules per kilogram (4500 British thermal units per pound) shall be used.
  - (2) For municipal waste combustion units with a design not based on heat input capacity, the maximum charging rate shall be used.
- b. Batch municipal waste combustion unit capacity shall be determined by calculating the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that can be processed in 24 hours. The maximum number of batches shall be calculated by dividing 24 by the number of hours needed to process one batch. Fractional batches shall be retained in the calculation; for example, if one batch requires 16 hours, the municipal waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours.
- (9 VAC 5-40-6730 F)

## **F. Test Methods and Procedures**

1. The provisions governing test methods and procedures shall be as follows:
    - a. With regard to the emissions standards in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690, the provisions of 9 VAC 5-40-30 (Emission testing) apply.
    - b. With regard to the emission limits in 9 VAC 5-40-6570 through 9 VAC 5-40-6660 and 9 VAC 5-40-6670 B, the following provisions apply:
      - (1) 9 VAC 5-40-30 D and G;
      - (2) 40 CFR 60.8 (b) through (f), with the exception of paragraph (a); and
      - (3) Subsections B through F of 9 VAC 5-40-6740.
- (9 VAC 5-40-6740 A)
2. Class I units shall submit dioxin/furan emission test results for at least one test conducted during or after 1990. The emission tests shall have been conducted according to the procedures specified under 9 VAC 5-40-6740 D.
- (9 VAC 5-40-6740 B)
3. Emission testing shall be conducted on the following schedule:

- a. Initial emission tests for the pollutants listed in 9 VAC 5-40-6730 C shall be conducted no later than 180 days after the initial compliance date specified in 9 VAC 5-40-6710 A
  - b. Annual emission tests for the pollutants listed in 9 VAC 5-40-6730 C shall be conducted no later than 13 months after the initial emission test and no later than 13 months after the previous emission test thereafter  
(9 VAC 5-40-6740 C)
4. Emission testing shall be conducted as follows:
- a. Specific testing requirements are as follows:
    - (1) For dioxins/furans: Reference Method 1 shall be used to determine the sampling location. Reference Method 23 shall be used to measure the pollutant concentration; oxygen (or carbon dioxide) shall be measured simultaneously using Reference Method 3A or 3B. The minimum sampling time shall be 4 hours per test run while the municipal waste combustion unit is operating at full load
    - (2) For cadmium: Reference Method 1 shall be used to determine the sampling location. Reference Method 29 shall be used to measure the pollutant concentration; oxygen (or carbon dioxide) shall be measured simultaneously using Reference Method 3A or 3B. Compliance testing shall be performed while the municipal waste combustion unit is operating at full load
    - (3) For lead: Reference Method 1 shall be used to determine the sampling location. Reference Method 29 shall be used to measure the pollutant concentration; oxygen (or carbon dioxide) shall be measured simultaneously using Reference Method 3A or 3B. Compliance testing shall be performed while the municipal waste combustion unit is operating at full load
    - (4) For mercury: Reference Method 1 shall be used to determine the sampling location. Reference Method 29 shall be used to measure the pollutant concentration; oxygen (or carbon dioxide) shall be measured simultaneously using Reference Method 3A or 3B. Compliance testing shall be performed while the municipal waste combustion unit is operating at full load
    - (5) For opacity: Reference Method 9 shall be used to determine the sampling location, and Reference Method 9 shall be used to measure the pollutant concentration. Reference Method 9 shall be used to determine compliance with the opacity limits, using a 3-hour observation period (thirty, 6-minute averages)
    - (6) For particulate matter: Reference Method 1 shall be used to determine the sampling location, and Reference Method 5 or 29 shall be used to measure the pollutant concentration. The minimum sample probe volume shall be 1.0 cubic meters. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature no greater than  $160 \pm 14$  degrees Centigrade. The minimum sampling time is one hour.
    - (7) For hydrogen chloride: Reference Method 1 shall be used to determine the sampling location. Reference Method 26 or 26A shall be used to measure the pollutant concentration; oxygen (or carbon dioxide) shall be measured



simultaneously using Reference Method 3A or 3B. Test runs shall be at least one hour long while the municipal waste combustion unit is operating at full load

- (8) For fugitive ash: No sampling location applies. Reference Method 22 (visible emissions) shall be used to measure the pollutant concentration. The three 1-hour observation periods shall include periods when the facility transfers fugitive ash from the unit to the area where the fugitive ash is stored or loaded onto containers or trucks
  - (1) For sulfur dioxide, nitrogen oxide, and carbon monoxide, continuous emission monitoring systems shall be used. Emission tests are not required except for quality assurance requirements in appendix F of 40 CFR Part 60.
- b. Emission tests for all pollutants shall consist of at least three test runs as specified in 40 CFR 60.8. The average of the pollutant emission concentrations from the three test runs shall be used to determine compliance with the applicable emission limits.
  - c. Oxygen (or carbon dioxide) measurements shall be obtained at the same time as the pollutant measurements to determine diluent gas levels, as specified in 9 VAC 5-40-6750 B.
  - d. The percent reduction in potential hydrogen chloride emissions shall be calculated using the equation in 9 VAC 5-40-6740 D.4.
  - e. The reduction efficiency for mercury emissions shall be calculated using the equation in 9 VAC 5-40-6740 D.5.
  - f. The owner may apply to the board for approval under 40 CFR 60.8(b) to use a reference method with minor changes in methodology, use an equivalent method, use an alternative method the results of which the board has determined are adequate for demonstrating compliance, waive the requirement for an emission test because the owner has demonstrated compliance by other means, or use a shorter sampling time or smaller sampling volume (9 VAC 5-40-6740 D)
5. Alternative emission testing schedules may be established as follows:
- a. A Class II unit that has conducted emission tests for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash over 3 consecutive years, and has demonstrated compliance with the emission limits is not required to conduct an emission test for that pollutant for the next 2 years. An emission test shall be conducted within 36 months of the anniversary date of the third consecutive emission test that shows compliance with the emission limit. Thereafter, emission tests shall be performed every third year but no later than 36 months following the previous emission tests. If an emission test shows noncompliance with an emission limit, annual emission tests for that

pollutant shall be conducted until all emission tests over three consecutive years show compliance with the emission limit for that pollutant.  
(9 VAC 5-40-6740 E)

6. No owner of an affected facility shall deviate from the 13-month testing schedules specified in 9 VAC 5-40-6740 C and 8 VAC 5-40-6740 E 2 a without applying to the board for an alternative schedule, and the board approves the request for alternate scheduling prior to the date on which the owner would otherwise have been required to conduct the next emission test.  
(9 VAC 5-40-6740 F)

## **G. Monitoring**

1. The provisions governing monitoring shall be as follows:
  - a. With regard to the emissions standards in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690, the provisions of 9 VAC 5-40-40 (Monitoring) apply.
  - b. With regard to the emission limits in 9 VA 5-40-6570 through 9 VAC 5-40-6660, and 9 VAC 5-40-6670 B, the following provisions apply:
    - (1) 9 VAC 5-40-40 A and F;
    - (2) 40 CFR 60.13; and
    - (3) Subsections B through L of this section.

(9 VAC 5-40-6750 A)
2. Continuous emission monitoring systems for gaseous pollutants shall be installed as follows:
  - a. Each affected municipal waste combustion unit shall install, calibrate, maintain, and operate continuous emission monitoring systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. The continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) shall be installed at the outlet of the air pollution control device
  - b. Each continuous emission monitoring system shall be installed, evaluated, and operated according to the monitoring requirements in 40 CFR 60.13
  - c. The oxygen (or carbon dioxide) concentration shall be monitored at each location where sulfur dioxide and carbon monoxide are monitored.
  - d. Carbon dioxide may be monitored instead of oxygen as a diluent gas. If carbon dioxide is monitored, then an oxygen monitor is not required and the requirements in 9 VAC 5-40-6750 F shall be met.
  - e. If compliance is demonstrated by monitoring the percent reduction of sulfur dioxide, continuous emission monitoring systems for sulfur dioxide and oxygen (or carbon dioxide) shall be installed at the inlet of the air pollution control device
  - f. If an alternative sulfur dioxide monitoring method is used, such as parametric monitoring, or if the source cannot monitor emissions at the inlet of the air pollution control device to determine percent reduction, an alternative method may be used on approval of the board under 40 CFR 60.13(i).

(9 VAC 5-40-6750 B)

3. Continuous emission monitoring systems shall be operated as follows:
- a. Initial, daily, quarterly, and annual evaluations of the continuous monitoring systems that measure oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide shall be conducted.
  - b. The initial evaluation of the continuous emission monitoring systems shall be completed within 180 days after the final compliance date specified in 9 VAC 5-40-6710 A.
  - c. For initial and annual evaluations, data shall be collected concurrently (or within 30 to 60 minutes) using the oxygen (or carbon dioxide) continuous emission monitoring system, the sulfur dioxide, or carbon monoxide continuous emission monitoring systems, as appropriate, using the following test methods:
    - (1) For sulfur dioxide, the pollutant concentration levels shall be validated using Reference Method 6 or 6C; oxygen (or carbon dioxide) shall be measured using Reference Method 3 or 3A
    - (2) For carbon monoxide, the pollutant concentration levels shall be validated using Reference Method 10, 10A, or 10B; oxygen (or carbon dioxide) shall be measured using Reference Method 3 or 3A
  - d. Data shall be collected during each initial and annual evaluation of the continuous emission monitoring systems as follows:
    - (1) For opacity: the span value shall be 100 percent, and Performance Specification 1 shall be used. Reference Method 9 shall be used if needed to meet minimum data requirements
    - (2) For sulfur dioxide:
      - (a) For the inlet to the control device: the span value shall be 125 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit, and Performance Standard 2 shall be used. Reference Method 6C shall be used if needed to meet minimum data requirements
      - (b) For the control device outlet: the span value shall be 50 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit, and Performance Standard 2 shall be used. Reference Method 6C shall be used if needed to meet minimum data requirements.
    - (3) For carbon monoxide: the span value shall be 125 percent of the maximum expected hourly potential carbon monoxide emissions of the municipal waste combustion unit, and Performance Specification 4A shall be used. Reference Method 10 with alternative interference trap shall be used if needed to meet minimum data requirements.
    - (4) For oxygen or carbon dioxide: the span value shall be 25 percent oxygen or 25 percent carbon dioxide, and Performance Specification 3 shall be used. Reference Method 3A or 3B shall be used if needed to meet minimum data requirements.
  - e. The quality assurance procedures in Procedure 1 of appendix F of 40 CFR Part 60 shall be followed for each continuous emission monitoring system.
- (9 VAC 5-40-6750 C)

4. The accuracy tests for the sulfur dioxide continuous emission monitoring system require evaluation of the oxygen (or carbon dioxide) continuous emission monitoring system. Therefore, the oxygen (or carbon dioxide) continuous emission monitoring system is exempt from Section 2.3 of Performance Specification 3 in appendix B of 40 CFR Part 60 (relative accuracy requirement) and Section 5.1.1 of appendix F of 40 CFR Part 60 (relative accuracy test audit).  
(9 VAC 5-40-6750 D)
5. The following schedule for evaluating continuous emission monitoring systems shall be met:
  - a. Annual evaluations of the continuous emission monitoring systems shall be conducted no more than 13 months after the previous evaluation was conducted.
  - b. Continuous emission monitoring systems shall be evaluated daily and quarterly as specified in appendix F of 40 CFR Part 60.  
(9 VAC 5-40-6750 E)
6. The relationship between oxygen and carbon dioxide shall be established during the initial evaluation of the continuous emission monitoring systems, and may be reestablished during annual evaluations. The relationship shall be established as follows:
  - a. Reference Method 3A or 3B shall be used to determine oxygen concentration at the location of the carbon dioxide monitor
  - b. At least three test runs for oxygen shall be conducted. Each test run shall represent a 1-hour average, and sampling shall continue for at least 30 minutes in each hour.
  - c. The fuel-factor equation in Reference Method 3B shall be used to determine the relationship between oxygen and carbon dioxide.  
(9 VAC 5-40-6750 F)
7. The following monitoring data shall be collected:
  - a. Where continuous emissions monitoring systems are required, 1-hour arithmetic averages shall be obtained. The averages for sulfur dioxide and carbon monoxide shall be in parts per million by dry volume at 7 percent oxygen (or the equivalent carbon dioxide level). The 1-hour averages of oxygen (or carbon dioxide) data from the continuous emission monitoring system shall be used to determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent oxygen (or the equivalent carbon dioxide level).
  - b. At least two data points per hour shall be obtained in order to calculate a valid 1-hour arithmetic average. 40 CFR 60.13(e)(2) requires the continuous emission monitoring systems to complete at least one cycle of operation (sampling, analyzing, and data recording) for each 15-minute period
  - c. Valid 1-hour averages shall be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.

- d. Failure to obtain the minimum data required in subdivisions G 1 through G 3 of this section constitutes a violation of the data collection requirement regardless of the emission level monitored. In such case the board shall be notified according to 9 VAC 5-40-6770 B 2 e.
  - e. If the minimum data required in subdivisions G1 though G3 of 9 VAC 5-40-6750 is not obtained, the owner shall nevertheless use all valid data from the continuous emission monitoring systems in calculating emission concentrations and percent reductions in accordance with subsection H of this section.  
(9 VAC 5-40-6750 G)
8. One-hour arithmetic averages shall be converted into averaging times and units as follows:
- a. Emissions shall be calculated at 7 percent oxygen.
  - b. Reference Method 19 shall be used to calculate the daily geometric average concentrations of sulfur dioxide emissions. Owners monitoring the percent reduction of sulfur dioxide shall use Reference Method 19 to determine the daily geometric average percent reduction of potential sulfur dioxide emissions.
  - d. Reference Method 19 shall be used to calculate the 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon monoxide.  
(9 VAC 5-40-6750 H)
9. Operating parameters required for continuous monitoring are as follows:
- a. Municipal waste combustion unit load shall be monitored as follow:
    - (1) Municipal waste combustion units that generate steam shall install, calibrate, maintain, and operate a steam flowmeter or a feed water flowmeter as follows:
      - (a) The measurements of steam (or feed water) shall be continuously measured and recorded in kilograms (or pounds) per hour.
      - (b) The steam (or feed water) flow shall be calculated in 4-hour block averages.
      - (c) The steam (or feed water) flow rate shall be calculated using the method in “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991), “section 4 (see 9 VAC 5-20-21).
      - (d) Nozzles or orifices for flow rate measurements shall be designed, constructed, installed, calibrated, and used following the recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters”, 6<sup>th</sup> Edition (1971), chapter 4 (see 9 VAC 5-20-21).
      - (e) Before each dioxins/furans emission test, or at least once a year, all signal conversion elements associated with steam (or feed water) flow measurements shall be calibrated according to the manufacturer’s instructions.
    - (2) If the municipal waste combustion units do not generate steam, or if the municipal waste combustion units have shared steam systems and steam load cannot be estimated per unit, the owner shall determine, to the satisfaction of the board, one or more operating parameters that can be used to continuously estimate load level (for example, the feed rate of municipal solid waste or

- refuse-derived fuel). The selected parameters shall be monitored continuously.
- b. The owner shall install, calibrate, maintain, and operate a device to continuously measure the temperature of the flue gas stream at the inlet of each particulate matter control device.
  - c. Municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions shall perform the following:
    - (1) A carbon injection system operating parameter that can be used to calculate carbon feed rate (for example, screw feeder speed) shall be selected.
    - (2) During each dioxins/furans and mercury emission test, the average carbon feed rate in kilograms (or pounds) per hour and the average operating parameter level that correlates to the carbon feed rate shall be determined. A relationship between the operating parameter and the carbon feed rate in order to calculate the carbon feed rate based on the operating parameter level shall be established.
    - (3) The selected operating parameter shall be continuously monitored during all periods when the municipal waste combustion unit is operating and combusting waste, and the 8-hour block average carbon feed rate shall be calculated in kilograms (or pounds) per hour, based on the selected operating parameter. When calculating the 8-hour block average, (i) hours when the municipal waste combustion unit is not operating shall be excluded, and (ii) hours when the municipal waste combustion unit is operating but the carbon feed system is not working correctly shall be included.
  - d. Continuous parameter monitoring systems shall meet the following requirements:
    - (1) 1-hour arithmetic averages shall be obtained for the following parameters:
      - (a) Load level of the municipal waste combustion unit,
      - (b) Temperature of the flue gases at the inlet of the particulate matter control device, and
      - (c) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury emissions.
    - (2) In order to calculate a valid 1-hour arithmetic average, at least two data points per hour shall be obtained
    - (3) Valid 1-hour averages shall be obtained for at least 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter. An operating day is any day the unit combusts any municipal solid waste or refuse-derived fuel.
    - (4) If the minimum data required in subdivisions 4 a through c of this subsection are not obtained, the owner is in violation of the data collection requirement, and shall notify the board according to 9 VAC 5-40-6770 B 2 e.
- (9 VAC 5-40-6750 I)
10. An initial evaluation of the continuous opacity monitoring system shall be completed according to Performance Specification 1 in appendix B of 40 CFR Part 60 no later than 180 days after the final compliance date specified in 9 VAC 5-40-6710 A. Each annual evaluation of the continuous opacity monitoring system shall be completed no more than 13 months after the previous evaluation. Tests shall be conducted

according to Reference Method 9, as specified in 9 VAC 5-40-6740 D, to determine compliance with the opacity limit in 9 VAC 5-40-6660. The data obtained from the continuous opacity monitoring system are not used to determine compliance with the opacity limit.

(9 VAC 5-40-6750 J)

11. Operation of the continuous emission monitoring systems and continuous opacity monitoring systems shall use the required span values and applicable performance specifications in 9 VAC 5-40-6750 C.  
(9 VAC 5-40-6750 K)
12. If any continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements due to systems malfunction or when repairs, calibration checks, or zero and span checks prevent collection of the minimum amount of data, the alternate methods found in 9 VAC 5-40-6740 D shall be used.  
(9 VAC 5-40-6750 L)

## **H. Recordkeeping**

1. The provisions governing recordkeeping shall be as follows:
  - a. With regard to the emissions standards in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-50-6690, the provisions of 9 VAC 5-40-50 (Notification, records and reporting) apply.
  - b. With regard to the emission limits in 9 VAC 5-40-6570 through 9 VAC 5-60-6660, and 9 VAC 5-40-6670 B, the following provisions apply
    - (1) 9 VAC 5-40-50 F and H;
    - (2) 40 CFR 60.7; and
    - (3) Subsections B through F of this section.

(9 VAC 5-40-6760 A)
2. All records shall be kept onsite in paper copy or electronic format unless the board approves another format. All records on each municipal waste combustion unit shall be kept for at least 5 years, and shall be available for submittal to the board or for onsite review by an inspector.  
(9 VAC 5-40-6760 B)
3. The following records for operator training and certification shall be maintained:
  - a. Records of provisional certifications, including:
    - (1) For the municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are provisionally certified by the American Society of Mechanical Engineers, or an equivalent board-approved certification program.
    - (2) Dates of the initial provisional certifications.
    - (3) Documentation showing current provisional certifications.
  - b. Records of full certifications and licenses, including:
    - (1) For the municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who are fully certified

- by the American Society of Mechanical Engineers or an equivalent board-approved program.
- (2) Dates of initial and renewal of full certifications and licenses.
- (3) Documentation showing current full certifications and licenses.
- c. Records showing completion of the operator training course, including:
  - (1) For the municipal waste combustion plant, names of the chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustion operator training course or an equivalent board-approved program.
  - (2) Dates of completion of the operator training course.
  - (3) Documentation showing completion of the operator training course.
- d. Records of reviews for plant-specific operating manuals, including:
  - (1) Names of persons who have reviewed the operating manual.
  - (2) Date of the initial review.
  - (3) Dates of subsequent annual reviews.
- e. Records of when a certified operator is temporarily offsite, including:
  - (1) If the certified chief facility operator and certified shift supervisor are offsite for more than 12 hours but for 2 weeks or less and no other certified operator is onsite, the dates that the certified chief facility operator and certified shift supervisor were offsite shall be recorded.
  - (2) When all certified chief facility operators and certified shift supervisors are offsite for more than 2 weeks and no other certified operator is onsite, the following records shall be kept:
    - (a) The notice that all certified persons are offsite.
    - (b) The conditions that cause those people to be offsite.
    - (c) The corrective actions being taken to ensure a certified chief facility operator or certified shift supervisor is onsite.
    - (d) Copies of the written reports submitted every 4 weeks that summarize the actions taken to ensure that a certified chief facility operator or certified shift supervisor will be onsite.
- f. Records and calendar dates. Include the calendar date on each record.  
(9 VAC 5-40-6760 C)
- 4. For emission tests required under 9 VAC 5-40-6730 C, the following records shall be kept:
  - a. Emission test results for dioxins/furans, cadmium, lead, mercury, opacity, particulate matter, hydrogen chloride, and fugitive ash.
  - b. Test reports, including supporting calculations that document the results of all emission tests.
  - c. The maximum demonstrated load of the municipal waste combustion units and maximum temperature at the inlet of the particulate matter control device during all emission tests for dioxins/furans emissions.
  - d. The calendar date of each record.  
(9 VAC 5-40-6760 D)
- 5. For continuously monitored pollutants or parameters, the following records shall be maintained:



- a. Records of monitoring data, including the following parameters measured using continuous monitoring systems:
  - (1) All 6-minute average levels of opacity.
  - (2) All 1-hour average concentrations of sulfur dioxide emissions.
  - (3) All 1-hour average concentrations of carbon monoxide emissions.
  - (4) All 1-hour average load levels of municipal waste combustion unit.
  - (6) All 1-hour average flue gas temperatures at the inlet of the particulate matter control device.
- b. Records of the average concentrations and percent reductions.
  - (1) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions or average percent reductions of sulfur dioxide emissions.
  - (2) All 4-hour block or 24-hour block arithmetic average concentrations of carbon monoxide emissions.
  - (3) All 4-hour block arithmetic average load levels of the municipal waste combustion unit.
  - (4) All 4-hour block arithmetic average flue gas temperatures at the inlet of the particulate matter control device.
- c. Records of exceedances, including:
  - (1) Calendar dates whenever any of the pollutant or parameter levels recorded in subdivision 2 of this subsection or the opacity level recorded in subdivision of this section did not meet the emission limits or operating levels specified in this article.
  - (2) Reasons why the applicable emission limits or operating levels were exceeded.
  - (3) Corrective actions taken or being taken to meet the emission limits or operating levels.
- d. Records of minimum data, including the following:
  - (1) Calendar dates for which the minimum amount of data required under 9 VAC 5-40-6750 G and 9 VAC 5-40-6750 I 4 were not collected for the following types of pollutants and parameters:
    - (a) Sulfur dioxide emissions.
    - (c) Carbon monoxide emissions.
    - (d) Load levels of the municipal waste combustion unit.
    - (e) Temperatures of the flue gases at the inlet of the particulate matter control device.
  - (2) Reasons why the minimum data were not collected.
  - (3) Corrective actions taken or being taken to obtain the required amount of data.
- e. Records of exclusions, including documentation of each time data was excluded from the calculation of averages for any of the following pollutants or parameters and the reasons why the data were excluded:
  - (1) Sulfur dioxide emissions.
  - (2) Carbon monoxide emissions.
  - (3) Load levels of the municipal waste combustion unit.
  - (4) Temperatures of the flue gases at the inlet of the particulate matter control device.

- f. Records of drift and accuracy, including documentation of the results of daily drift tests and quarterly accuracy determinations according to Procedure 1 of appendix F of 40 CFR Part 60, for the sulfur dioxide, and carbon monoxide continuous emissions monitoring systems.
  - g. Records of the relationship between oxygen and carbon dioxide. If carbon dioxide is monitored instead of oxygen as a diluent gas, document the relationship between oxygen and carbon dioxide, as specified in 9 VAC 5-40-6750 F.
  - h. Records of calendar dates shall be included on each record.  
(9 VAC 5-40-6760 E)
- 6. Municipal waste combustion units that use activated carbon to control dioxins/furans or mercury emissions shall maintain the following records:
  - a. Records of the average carbon feed rate, including documentation of the following:
    - (1) Average carbon feed rate in kilograms (or pounds) per hour during all emission tests for dioxins/furans and mercury emissions, with supporting calculations.
    - (2) For the operating parameter chosen to monitor carbon feed rate, average operating level during all emission tests for dioxins/furans and mercury emissions. Supporting data that document the relationship between the operating parameter and the carbon feed rate shall be included in the records.
    - (3) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour calculated from the monitored operating parameter.
    - (4) Total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter. Supporting documentation shall be included in the records.
    - (5) Required quarterly usage of carbon for the municipal waste combustion plant. Supporting calculations shall be included in the records.
      - (a) The equation in this subdivision shall be used for calculation on a plant basis.
  - b. Records of low carbon feed rates, including the following:
    - (1) The calendar dates when the average carbon feed rate over an 8-hour block was less than the average carbon feed rates determined during the most recent emission test for dioxins/furans or mercury emissions (whichever has a higher feed rate).
    - (2) Reasons for the low carbon feed rates.
    - (3) Corrective actions taken or being taken to meet the 8-hour average carbon feed rate requirement.
  - c. Records of minimum carbon feed rate data, including the following:
    - (1) Calendar dates for which the minimum amount of carbon feed rate data required under 8 VAC 5-40-6750 I 4 were not collected.
    - (2) Reasons why the minimum data was not collected.
    - (3) Corrective actions taken or being taken to obtain the required amount of data.

- d. Records of exclusions, including documentation of each time data were excluded from the calculation of average carbon feed rates and the reasons why.
- e. Records of calendar dates, including the calendar date on each record.  
(9 VAC 5-40-6760 F)

## **I. Reporting**

1. The provision governing reporting shall be as follows:
  - a. With regard to the emissions standards in 8 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690, the provisions of 9 VAC 5-40-50 (Notification, records and reporting) apply.
  - b. With regard to the emission limits in 9 VAC 5-40-6570 through 9 VAC 5-40-6660, and 9 VAC 5-40-6670 B, the following provisions apply:
    - (1) 9 VAC 5-40-50 F and H.
    - (2) 40 CFR 60.7.
    - (3) Subsections B and C of this section.  
(9 VAC 5-40-6770 A)
2. The owner of an affected facility shall submit (i) an initial report; (ii) annual reports; and (iii) semiannual reports for any emission or parameter level that does not meet the provisions of this article, as described in subdivisions B1 through B 3 of this subsection. All reports shall be submitted on paper, postmarked on or before the submittal dates in subdivisions B 1 through B 3. Electronic reports may be submitted with the board's prior approval. All reports required by subdivisions B 1 a, B 2, and B 3 shall be maintained onsite for 5 years.
  - a. As specified in 40 CFR 60.7(c), the initial report shall be submitted no later than 180 days after the final compliance date specified in 9 VAC 5-40-6710 A. The initial report shall include the following:
    - (1) The emission levels measured on the date of the initial evaluation of the continuous emission monitoring systems for all of the following pollutants or parameters as recorded in accordance with 9 VAC 5-40-6760 E 2:
      - (a) The 24-hour daily geometric average concentration of sulfur dioxide emissions
      - (b) The 4-hour block or 24-hour daily arithmetic average concentration of carbon monoxide emissions
      - (c) The 4-hour block arithmetic average load level of the municipal waste combustion unit
      - (d) The 4-hour block arithmetic average flue gas temperature at the inlet of the particulate matter control device
    - (2) The results of the initial emission tests as required by 9 VAC 5-40-6730 C and recorded in 9 VAC 5-40-6760 D.
    - (3) The test report that documents the initial emission tests, including supporting calculations.
    - (4) The initial performance evaluation of the continuous emissions monitoring systems, using the applicable performance specifications in appendix B of 40 CFR Part 60 to conduct the evaluation.

- (5) The maximum demonstrated load of the municipal waste combustion unit and the maximum demonstrated temperature of the flue gases at the inlet of the particulate matter control device, using values established during the initial emission test for dioxins/furans emissions, and including supporting calculations.
  - (6) If activated carbon is used to control dioxins/furans or mercury emissions, the average carbon feed rates recorded during the initial emission tests for dioxins/furans and mercury emissions, including supporting calculations as specified in 9 VAC 5-40-6760 F 1 a and b.
  - (7) If carbon dioxide is monitored instead of oxygen as a diluent gas, the relationship between oxygen and carbon dioxide as specified in 9 VAC 5-40-6750 F.
- b. The annual report shall be submitted no later than February 1 of each year that follows the calendar year in which the data is collected. If the facility has a federal operating permit for any unit, the permit may require submittal of semiannual reports. The annual report shall summarize data collected for all pollutants and parameters regulated under this article, and shall include:
- (1) The results of the annual emission test as required by 9 VAC 5-40-6730 C and as recorded under 9 VAC 5-40-6760 D 1.
  - (2) A list of the highest average levels recorded, in the appropriate units, for the following pollutants and parameters:
    - (a) Sulfur dioxide emissions.
    - (b) Carbon monoxide emissions.
    - (c) Load level of the municipal waste combustion unit.
    - (d) Temperature of the flue gases at the inlet of the particulate matter air pollution control device (4-hour block average).
  - (3) The highest 6-minute opacity level measured. The value shall be based on all 6-minute average opacity levels recorded by the continuous opacity monitoring system as required by 9 VAC 5-40-6760 E 1 a.
  - (4) For municipal waste combustion units that use activated carbon for controlling dioxins/furans or mercury emissions, the following records shall be included:
    - (a) The average carbon feed rates recorded during the most recent dioxins/furans and mercury emission tests.
    - (b) The lowest 8-hour block average carbon feed rate recorded during the year
    - (c) The total carbon purchased and delivered to the municipal waste combustion plant for each calendar quarter.
    - (d) The required quarterly carbon usage of the municipal waste combustion plant calculated using the equations in 9 VAC 5-40-6760 F 1 e (1) and (2).
  - (5) The total number of days the minimum number of hours of data for the following pollutants or parameters were not obtained, including the reasons why data were not obtained and corrective actions taken to obtain the data in the future:
    - (a) Sulfur dioxide emissions.
    - (b) Carbon monoxide emissions.
    - (c) Load level of the municipal waste combustion unit.

- (d) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
- (e) Carbon feed rate.
- (6) The number of hours data have been excluded from the calculation of the average levels (include the reasons for excluding it), for the following pollutants and parameters:
  - (a) Sulfur dioxide emissions.
  - (b) Carbon monoxide emissions.
  - (c) Load level of the municipal waste combustion unit.
  - (d) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
  - (e) Carbon feed rate.
- (7) A notice of intent to begin a reduced emission testing schedule for dioxins/furans emissions during the following calendar year if the facility is eligible for alternative scheduling as provided in 9 VAC 5-40-6740 E 1 or 2.
- (8) A notice of intent to begin a reduced emission testing schedule for other pollutants during the following calendar year if the facility is eligible for alternative scheduling as provided in 9 VAC 5-40-6740 E 1.
- (9) A summary of any emission or parameter level that did not meet the limits specified in this article.
- (10) A summary of the data in subdivisions B 2 a through d of this section from the year preceding the reporting year which gives the board a summary of the performance of the municipal waste combustion unit over a 2-year period.
- (11) If carbon dioxide is monitored instead of oxygen as a diluent gas, documentation of the relationship between oxygen and carbon dioxide, as specified in 9 VAC 5-40-6750 F.
- (12) Documentation of periods when all certified chief facility operators and certified shift supervisors are offsite for more than 12 hours.
- c. A semiannual report on any recorded emission or parameter level that does not meet the requirements specified in this article shall be submitted. For data collected during the first half of a calendar year, the report shall be submitted by August 1 of that year. For data collected during the second half of the calendar year, the report shall be submitted by February 1 of the following year. The following information shall be included:
  - (1) For any of the following pollutants and parameters that exceeded the limits specified in this article, the calendar date they exceeded the limits, the averaged and recorded data for that date, the reasons for exceeding the limits, and corrective actions taken:
    - (a) Concentration or percent reduction of sulfur dioxide emissions.
    - (b) Concentration of carbon monoxide emissions.
    - (c) Load level of the municipal waste combustion unit.
    - (d) Temperature of the flue gases at the inlet of the particulate matter air pollution control device.
    - (e) Average 6-minute opacity level. The data obtained from the continuous opacity monitoring system are not used to determine compliance with the limit on opacity emissions.

- (2) If the results of the annual emission tests (as recorded in 9 VAC 5-40-6760 D 1) show emissions above the limits for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, a copy of the test report that documents the emission levels and corrective actions taken shall be included.
  - (3) Municipal waste combustion units that apply activated carbon to control dioxins/furans or mercury emissions shall include the following:
    - (a) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from the carbon injection system operating parameter) is less than the highest carbon feed rate established during the most recent mercury and dioxins/furans emission test, as specified in 9 VAC 5-40-6760 F 1 a, including (i) eight-hour average carbon feed rate, (ii) reasons for occurrences of low carbon feed rates, (iii) corrective actions taken to meet the carbon feed rate requirement, and (iv) the calendar date.
    - (b) Documentation of each quarter when total carbon purchased and delivered to the municipal waste combustion plant is less than the total required quarterly usage of carbon. The following information shall be included:
      - (i) amount of carbon purchased and delivered to the plant, (ii) required quarterly usage of carbon, (iii) reasons for not meeting the required quarterly usage of carbon, (iv) corrective actions taken to meet the required quarterly usage of carbon, and (v) the calendar date.
- (9 VAC 5-40-6770 B)
3. Changes to semiannual or annual reporting dates may be pursued in accordance with the procedures of 50 CFR 60.19(c), and with the approval of the board.  
(9 VAC 5-40-6770 C)

#### **J. Registration**

1. The provisions of 9 VAC 5-20-160 (Registration) apply.  
(9 VAC 5-40-6790)

#### **K. Facility and Control Equipment Maintenance or Malfunction**

1. The provisions of 9 VAC 5-20-180 (Facility and control equipment maintenance or malfunction) apply to the emission standards set forth in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690.  
(9 VAC 5-40-6800 A)
2. The provisions of 9 VAC 5-20-180 A, B, C, D, H, and I and subsections C through E of this section apply to the emission limits in 9 VAC 5-40-6530 through 9 VAC 5-40-6660 and 9 VAC 5-40-6670 B.  
(9 VAC 5-40-6800 B)
3. The emission limitations and operating limits apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction. No startup, shutdown, or malfunction shall last for longer than 3 hours. This subsection shall not

apply to the emission standards set forth in 9 VAC 5-40-6670 A, 9 VAC 5-40-6680, and 9 VAC 5-40-6690.  
(9 VAC 5-40-6800 C)

4. A maximum of 3 hours of test data may be dismissed from compliance calculations during periods of startup, shutdown, or malfunction.  
(9 VAC 5-40-6800 D)
5. During startup, shutdown, or malfunction periods longer than 3 hours, emission data shall not be discarded from compliance calculations, and all provisions under 40 CFR 60.11(d) apply.  
(9 VAC 5-40-6800 E)

#### **L. Permits**

1. A permit may be required prior to beginning any of the activities specified below if the provisions of 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) and 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.) apply. Owners contemplating such action should review those provisions and contact the appropriate regional office for guidance on whether those provisions apply.
  - a. Construction of a facility
  - b. Reconstruction (replacement of more than half) of a facility
  - c. Modification (any physical change to equipment) of a facility
  - d. Relocation of a facility
  - e. Reactivation (restart-up) of a facility
  - f. Operation of a facility
 (9 VAC 5-40-6810)

### **VIII. Insignificant Emission Units**

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
6	Emergency diesel generator	9 VAC 5-80-720 C	PM, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC	Less than 6667 HP
7	Wood waste shredder	9 VAC 5-80-720 B	PM	20 tons/hour operated 2 hours/day
8	No. 2 Fuel Oil Storage Tank	9 VAC 5-80-720 B	VOC	4200 gallons
9	No. 2 Fuel Oil	9 VAC 5-80-720 B	VOC	4200 gallons

Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
	Storage Tank			

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

## **IX. Permit Shield & Inapplicable Requirements**

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
E.U.I.D. No. 5; 40 CFR 64	Compliance Assurance Monitoring	Not subject to CAM; no applicable control devices

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

## **X. General Conditions**

### **A. Federal Enforceability**

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9 VAC 5-80-110 N)

### **B. Permit Expiration**



This permit shall become invalid five years from the date of issuance. The permittee shall submit an application for renewal of this permit no earlier than 18 months and no later than six months prior to the date of expiration of this permit. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the DEQ on the renewal application.

(9 VAC 5-80-110 D and 9 VAC 5-80-80 F)

### **C. Recordkeeping and Reporting**

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place (as defined in the permit), and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.  
(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
  - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
    - (1) Exceedance of emissions limitations or operational restrictions;

- (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
  - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”
- (9 VAC 5-80-110 F)

#### **D. Annual Compliance Certification**

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)

U. S. Environmental Protection Agency, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029.  
(9 VAC 5-80-110 K.5)

#### **E. Permit Deviation Reporting**

The permittee shall notify the Director, Southwest Regional Office, within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition VIII.C.3 of this permit.  
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### **F. Failure/Malfunction Reporting**

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, Southwest Region, within four (4) daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the board.  
(9 VAC 5-20-180 C)

#### **G. Severability**

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)

#### **H. Duty to Comply**

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)

#### **I. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9 VAC 5-80-110 G.3)

**J. Permit Action for Cause**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.  
(9 VAC 5-80-110 G.4)
2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:
  - a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is potential of, a resulting emissions increase;
  - b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
  - c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emissions cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
  - d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;
  - e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;
  - f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);
  - g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.  
(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

## **K. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110 G.5)

## **L. Duty to Submit Information**

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)

## **M. Duty to Pay Permit Fees**

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.  
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

## **N. Fugitive Dust Emission Standards**

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.  
(9 VAC 5-40-90 and 9 VAC 5-50-90)

**O. Startup, Shutdown, and Malfunction**

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
(9 VAC 5-50-20)

**P. Alternative Operating Scenarios**

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.  
(9 VAC 5-80-110 J)

**Q. Inspection and Entry Requirements**

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
  4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (9 VAC 5-80-110 K.2)

#### **R. Reopening For Cause**

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
  3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
- (9 VAC 5-80-110 L)

#### **S. Permit Availability**

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

#### **T. Transfer of Permits**

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall

notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.  
(9 VAC 5-80-160)

#### **U. Malfunction as an Affirmative Defense**

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
  - d. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, telegraph, or any other method that allows the permittee to comply with the deadline. The notice fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.  
(9 VAC 5-80-250)



## **V. Permit Revocation or Termination for Cause**

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-260)

## **W. Duty to Supplement or Correct Application**

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-80 E)

## **X. Stratospheric Ozone Protection**

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)

## **Y. Accidental Release Prevention**

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)

## **Z. Changes to Permits for Emissions Trading**

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9 VAC 5-80-110 I)

## **AA. Emissions Trading**

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.  
(9 VAC 5-80-110 I)